

CLAYTON E. CRAMER

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SKILLS

Languages: Java; C; C#, SQL, assembly (x86, Z80, 8085, Z8000, 68000, 6809, 6502); PLM-86; TL-1; ASN.1; PostScript; FORTRAN IV.

Operating System Code Development: Linux; HPUNIX; BSD 4.2 Unix; DOS; Windows (early versions); Wind River Systems VxWorks.

Application Categories: DSL access multiplexers; routers; telephone switches; user interfaces; in-circuit emulators; business applications; Java applets; device drivers (for antiques).

Scripting Languages: ksh; Perl; HTML.

SCMs: ClearCase; SourceSafe; RCS; SCCS; Subversion.

SCM Administrator Experience: ClearCase; SourceSafe.

Protocol Development Experience: DHCP; SNMP.

Other Skills: Technical document creation; marketing collateral creation; project leader; public speaker.

EXPERIENCE

Idaho Department of Correction

2009-present

- Currently writing Java, JSP (using Struts), and Informix SQL using MyEclipse, Subversion, and AGS Server Studio on Windows and Suse Linux as part of the new offender management system. My initial responsibilities were maintenance of existing code, but as I became more experienced with our application, I have taken on lead responsibilities for new application development and process improvements.
- Currently I am leading completion of the Pre-Sentence Investigation application, which has been under development for at least three years (under a succession of different hands). I have successfully brought this to the final stages of acceptance by our customer.
- On my own initiative (although with my supervisor's gratitude), I am also leading the effort to bring our development strategy into the 1980s.
 - We had no operational unit test system. Now we do, with more than 650 unit tests providing at least some level of confidence in the quality of changes that developers are making.
 - Our current source code management strategy was an embarrassment: there are no branches at all, and no use of tags. All checkins are to the trunk; promotion from development through test, QA, and then to production by copying object files. I am leading development of a proper branching and release scheme using Subversion.

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- Because of the deficient source code management strategy, there was no way to debug application problems (except by logging error messages) except in development. I am leading the effort to install MyEclipse on the Suse Linux workstations to enable debugging. (As I said: bringing us into the 1980s.)

Contractor to Paladin POS Systems (Bend, Oregon)

2008-2009

- Wrote approximately 500 C#/NET unit tests for Paladin Data Systems' POS product; maintained and enhanced hundreds of existing unit tests. This involves some maintenance of existing SQL transactions and improving existing production code. Also user interface components and database export/import functions. I wrote C# using DataSets and DataTables to perform database transactions using SQL.

Hewlett-Packard Corporation

2001 – 2008

Research & Development Engineer: Software Integration Group. Languages: ksh; C; Java; C++.

- development of scripts and Java applets for gathering and displaying performance metrics;
- evaluating bottlenecks in our development processes;
- maintaining existing software integration tools;
- developing automated regression tests;
- led the writing of a comprehensive manual (approximately 280 pages) explaining how the software integration process works;
- led the development effort of porting our existing integration tools from HP-UX 11 to RedHat Linux 9.0;
- assisted with the planning and transition from ClearCase to Subversion.

American Communication Technologies International

2000 – 2001

Senior Software Engineer. Languages: C and M68360 assembly.

- evaluated both commercial and public domain SNMP agents;
- ported the XINU SNMP agent to our product, a mid-range router based on the Motorola 68360;
- evaluated a variety of public domain DHCP servers;
- ported the Moreton Bay DHCP server to our product;
- added DHCP relay capabilities to our product;
- created a flat file system for flash memory to provide a file system for persistent data for the DHCP server using the UNIX file system API;
- added ATM OAM capabilities to our product;
- evaluating TL1 agents;
- wrote a Java applet for SNMP configuration of our product;
- wrote device drivers for the Motorola ATM microcode extensions to the MC68360.

Diamond Lane Communications

1996 – 2000

Senior Software Engineer. Languages: Java, Swing, SNMP, CORBA, Oracle, SQL, Visual C++, VxWorks.

- designed and coded an automated regression test system that tested the Speedlink system through the SNMP interface;
- supervised a software build engineer, and responsible for maintenance of our build procedures and source version control systems;
- for each software release, documented how NMS or EMS developers should interface to the Speedlink DSL Access Multiplexer;
- managed an outside vendor's development of the Speedlink Upgrade Wizard (for upgrading Speedlink to newer versions of software);
- definition of the Speedlink TL-1 interface for a Bell Atlantic contract that never happened (this involved significant interaction with Bellcore's TL-1 test engineers);
- handled various ad hoc crisis management functions for the Director of Software Engineering.

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Manager, Technical Marketing.

- Created a technical publications group, establishing standards, defining customer documentation requirements, hiring technical writers;
- acted as marketing interface to the Engineering organization;
- wrote much of the documentation for Diamond Lane's Speedlink ATM/xDSL access multiplexer;
- developed Diamond Lane's web pages;
- hired and supervised a web developer as my other responsibilities increased;
- assisted with responding to RFPs;
- edited press releases and technical journal articles written by officers of the corporation;
- planning and setup of trade shows;
- interfacing to trade show vendors;
- installing equipment at trade shows;
- developing trade show strategies.

Nokia acquired Diamond Lane Communications while I was there.

Optilink Corporation

1987 - 1996

Software Engineer. Languages: C; x86 assembly; TL-1.

- requirements' analysis, design, coding, debugging, and integration of the Optilink Memory Administration and Provisioning System (OMAPS) with the Litespan-2000 fiber optics digital loop carrier;
- defined parsing and reporting rules to integrate Litespan-2000 into DSC's multiproduct Network Element Management System using the Objective Systems Integration NetExpert product;
- during the first 1 ½ years, also responsible for system administration of a Sun 3/50 workstations, PCs using Sun's PC-NFS, and Macs using an Apple LocalTalk/Ethernet bridge, including troubleshooting network configuration problems, mailer confusion, network hardware problems, and installing network news software;
- wrote an *Introduction to Litespan* book intended for use by new hires.

DSC bought Optilink while I was there; Alcatel later bought DSC.

Kontron Electronics

1984 - 1987

Software Project Leader. Languages: C; x86 assembly.

- defined product requirements for an in-circuit emulator user interface product;
- led three other software engineers in the design, code and debugging of this product in C that ran on a VAX or Sun-3 using Berkeley UNIX 4.2, and on an IBM AT under PC-DOS 3.1.

Harris Digital Telephone Systems

1982 - 1984

Software Engineer III. Languages: PL/M-86 and ASM86.

- designed, coded, and tested a native debugger for 8086 based digital PABX;
- coded changes to Telephony Interface Controller to accommodate new programming standards and changes in functional specifications;
- coded and debugged simulator for real time performance analysis of new digital PABX;
- coded telephony trunk control functions of Telephony Interface Controller;
- maintained logical disk I/O system;
- specified, designed, and coded software to interface 8051-based serial I/O device controller to PABX operating system;
- designed and coded a new logical disk I/O system to replace an existing, but unreliable one.

Futuredata (became Kontron Electronics)

1980 - 1982

Software Engineer III. Languages: assembly language for 8085, Z80, 6809, 6502, Z8002, and Z8001.

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- design, code, and test of all processor dependent software for the 6809 and 6502 Slave Emulator Development Systems;
- code and test of Z8002 resident software for Z8002 Slave Emulator;
- design, code, and test of disassemblers for the 6809, 6502, Z8002, Z8001, 68000, Z80, and 8085 Slave Emulators;
- assisted in systems integration of Z8002 Slave Emulator software and hardware;
- design, code, and test of utilities for sector allocation and management of files within a track allocation disk I/O scheme;
- design, code, and test of waveform display for Slave Emulator Logic Analyzer;
- travel to customer site in Memphis, TN, to assist marketing in 6502 Slave Emulator integration with customer product;
- enhancement and optimization of floppy disk, keyboard, CRT, and serial port I/O executive subroutines;
- maintenance and enhancement of File Editor, Debugger, serial port I/O driver, Slave Emulator Executive software, and Futuredata's Z8000 cross assembler;
- restructuring an I/O service subroutine library into a near operating system;
- maintaining a BASIC Interpreter;
- analysis of performance bottleneck with Futuredata's proprietary network system.

Raytheon (Lexitron Division)

1979 - 1980

Engineer. Languages: PL/M-80; STAGE II.

- designed, coded, and tested a floppy disk file control system diagnostic in PL/M-80 using Intel's ICE-85;
- designed, coded, and tested a program for generating ridiculously complicated tables using STAGE II, an almost incomprehensible but outrageously powerful macro language.

Telos Computing

1979

Member of Technical Staff. Languages: PL/I; CICS; DL-I; VTAM.

- performed detail design, code, and test of accounting programs, both batch and on-line.

Account Executive.

- interviewing computer professionals,
- checking references,
- negotiating contracts with customers, consultants, and employees.

Delta Management Systems

1976 - 1979

Employment Agent.

- performed all functions in an employment agency specializing in the placement of computer professionals

Telos Computing

1975 - 1976

Member of Technical Staff. Languages: Univac 1530 assembly language.

- designed, coded, and tested real-time and near-real-time assembler language programs for process and display of telemetry and imaging data returned by the Voyager space probes

Weird Jobs I Had Before I Was Old Enough To Vote

Previous experience includes summer and as needed employment with Santa Monica Unified School District and American Business Computers. Highlights include: definition of accounting system requirements for school district maintenance department; design and code of 32-bit arithmetic routines for Interdata 16 bit minicomputers in assembler; miscellaneous inventory control report programs in Interdata 74 assembler; maintenance and enhancement of Interdata DOS; design, code, and test of text editor for Interdata minicomputers; Enhancement of native debugger written for 16 bit Interdata operating in a timesharing environment.

CONSULTING EXPERIENCE

Led a team of three programmers in the design, programming, and maintenance of a small accounting system for service stations. This project was a fixed price plus royalties contract with AMFON II, a software marketing firm. All programming was in BASIC on the TRS-80 Model III.

Modified Z8002 disassembler to operate as a Z8001 disassembler as well. Converted CP/M program for calculating file CRCs to operate under proprietary Kontron operating system. Both projects were time and materials contracts with Kontron Electronics. All programming was in Z80 assembler language.

Developed a typesetter proofing program on the IBM PC for the Apple LaserWriter printer; all programming was in Microsoft C and PostScript.

I developed a terminate-and-stay-resident MSDOS utility for transparently converting Epson MX-80 output to PostScript, thus allowing MSDOS applications that had no PostScript support to be used with PostScript printers. I sold the Epson to PostScript translation code to Traveling Software, for inclusion in their LapLink product. I wrote this in C, 8086 assembler, and PostScript.

PROFESSIONAL EDUCATION

Yourdon Structured Design Workshop, San Francisco, 1982
Intel 286 Seminar, Santa Clara, 1983
Digital Research GEM ISV Seminar, Monterey, 1985
Digital IC Design, UC Berkeley Extension, 1986
Smalltalk, ParcPlace, Sunnyvale, 1994
ATM/IP Networks, UC Berkeley Extension, 1998
Introduction to SQL, PL/SQL, Oracle Corporation, 1998

EDUCATION

M.A. History, Sonoma State University, 1998
thesis title: "Concealed Weapon Laws of the Early Republic"

B.A. History, Sonoma State University, 1994, *cum laude* with honors
Minor: Computer & Information Science

Relevant coursework:

- Object-Oriented Programming in C++
- Introduction to File Processing
- Computer Hardware Organization
- Assembly Language Programming
- Introduction to Pascal
- Intermediate Pascal
- Introduction to C (completed by challenge exam)

PUBLICATIONS

Academic Books

By The Dim And Flaring Lamps: The Civil War Diary of Samuel McIlvaine, editor
Library Research Associates, Inc., Monroe, N.Y. [1990]

For The Defense Of Themselves And The State: The Original Intent And Judicial Interpretation of the Right To Keep And Bear Arms
Greenwood Publishing/Praeger, Westport, Conn. [1994]

Black Demographic Data, 1790-1860: A Sourcebook
Greenwood Publishing, Westport, Conn. [1997]

Concealed Weapon Laws of the Early Republic: Dueling, Southern Violence, and Moral Reform
Greenwood Publishing/Praeger, Westport, Conn. [1999]

Armed America: How Guns Became As American As Apple Pie
Nelson Current, Nashville, Tenn. [2006]

My Brother Ron: A Personal and Social History of the Deinstitutionalization of the Mentally Ill
Kindle [2012]

Popular Books

Firing Back!: Defending Your Right To Keep And Bear Arms
Krause Publishing, Iola, Wisc. [1995]

Academic Journal Papers

Clayton E. Cramer, "Ethical Problems of Mass Murder Coverage in the Mass Media," *Journal of Mass Media Ethics*, 9:1 [Winter 1993-94]: First Place, Association for Education in Journalism and Mass Communication Ethics Prize, 1993.

Clayton E. Cramer, "The Racist Roots of Gun Control", *Kansas Journal of Law & Public Policy*, [Winter, 1995].

Clayton E. Cramer & David P. Kopel, "'Shall Issue': The New Wave of Concealed Handgun Permit Laws", *Tennessee Law Review* [Spring, 1995].

David P. Kopel, Clayton E. Cramer, & Scott Hattrup, "A Tale of Three Cities: The Right to Bear Arms in State Supreme Courts.", *Temple Law Review* 68:3 [Fall, 1995] Examines the legal theories used by Oregon, Ohio, and Colorado courts when assault weapon regulations have been challenged under state constitutional arms provisions..

Clayton E. Cramer, "Confiscating Guns From America's Past", *Ideas on Liberty*, 51:1 [January, 2001], 23-27.

Clayton E. Cramer, "Why Footnotes Matter: Checking *Arming America's* Claims," *Plagiary* 1(11):1-31 [2006]

Clayton E. Cramer & Joseph Edward Olson, "What Did "Bear Arms" Mean in the Second Amendment?" *Georgetown Journal of Law and Public Policy*, 6:2 [2008].

Clayton E. Cramer & Joseph Edward Olson, "Pistols, Crime, and Public Safety in Early America." *Willamette Law Review*, 44[2008].

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Clayton E. Cramer & Joseph Edward Olson, "Gun Control: Political Fears Trump Crime Control," *Maine Law Review*, 61:1 [2009] 57-81.

Don B. Kates & Clayton E. Cramer, "Second Amendment Limitations and Criminological Considerations," 61 *Hastings Law Journal* 1339 (2009).

David B. Kopel & Clayton E. Cramer, "State Court Standards of Review for the Right to Keep and Bear Arms," 50 *Santa Clara Law Review* 101-208 (2010).

David B. Kopel & Clayton E. Cramer, "The Keystone of the Second Amendment: Quakers, the Pennsylvania Constitution, and the Questionable Scholarship of Nathan Kozuskanich," 19 *Widener Law Journal* 277-320 (2010).

Clayton E. Cramer, Nicholas J. Johnson & George A. Mocsary, "This Right is Not Allowed by Governments that are Afraid of the People': The Public Meaning of the Second Amendment When the Fourteenth Amendment was Ratified," 17 *George Mason Law Review* 3:823-862 (2010).

Popular Magazine & Newspaper Articles

See my web page <http://www.claytoncramer.com/popularmagazines.htm> for a current list of popular magazine articles – it is rather long and hard to keep up to date in so many places at once.

CITATIONS IN COURT DECISIONS

"What Did 'Bear Arms' Mean in the Second Amendment?," cited in *D.C. v. Heller* (2008). In addition, significant parts of Justice Scalia's opinion are derived from amicus briefs that I helped to research and write.

"This Right is Not Allowed by Governments that are Afraid of the People':" cited in *McDonald v. Chicago* (2010); *Ezell v. City of Chicago* (7th Cir. 2011).

"'Shall Issue': The New Wave of Concealed Handgun Permit Laws," cited in *Pagel v. Franscell*, 57 P.3d 1226, 1234 (Wyo. 2002); *Moody v. ARC of Howard County, Inc.*, Civil No. JKB-09-3228 (D.Md. 2011).

"Second Amendment Limitations and Criminological Considerations" cited in *U.S. v. Yancey*, 09-1138 (7th Cir. 2010); *U.S. v. Chester*, 628 F.3d 673 (4th Cir. 2010); *U.S. v. Skoien*, 587 F.3d 803 (7th Cir. 2009)

For the Defense of Themselves and the State, cited in *Mosby v. Devine*, 851 A.2d 1031, 1052 (RI 2004) (Flanders, J., dissenting); *U.S. v. Emerson*, 46 F.Supp.2d 598 (N.D.Texas 1999); *State v. Sieyes* 225 P. 3d 995 (Wash. 2010).

"A Tale of Three Cities," cited in *State v. Mendoza*, 920 P.2d 357, 360 n. 4 (Hawaii 1996).

Concealed Weapon Laws of the Early Republic, cited in *Senna v. Florimont*, 958 A.2d 427, 433 (N.J. 2008).

CONFERENCES & EXPERT TESTIMONY

American Society of Criminology, Chicago, Ill., November, 2002. "The Duty to be Armed in Colonial America." I delivered a paper on the legal obligations to own and carry firearms present in the American colonies.

American Society of Criminology, San Diego, November, 1997. I delivered a paper on the origins of the British Firearms Act of 1920. The audience remained conscious at all times.

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Michigan House of Representative Judiciary Committee, December 5, 1995. I testified concerning the effects of recent changes to concealed weapon licensing as discussed in the *Tennessee Law Review* article mentioned above, along with the history of Michigan's concealed weapon licenses.

Ohio State Senate Judiciary Committee, March 22, 1995. Pretty much the same speech as before the Michigan House of Representatives Judiciary Committee, somewhat tailored to Ohio's legislative and judicial history.